
वस्त्रादि — मछली पकड़ने के लिए
पोलीएमाइड नाइलॉन के एकतन्तु धागे —
विशिष्टि

(दूसरा पुनरीक्षण)

**Textiles — Polyamide (Nylon)
Monofilament Yarn for Fishing —
Specification**

(*Second Revision*)

ICS 59.080.20; 65.150

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भारतीय मानक ब्यूरो

BUREAU OF INDIAN STANDARDS

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FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after, the draft finalized by Textile Materials for Marine/Fishing Purposes Sectional Committee had been approved by the Textile Division Council.

This standard was first published in 1975 and subsequently revised in 2003. This revision has been taken up to incorporate the following changes:

- a) Values for yarns suitable for fabrication of gillnets have been added, and
- b) Additional values of diameter suitable for hook and line fishing have been included.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

TEXTILES — POLYAMIDE (NYLON) MONOFILAMENT YARN FOR FISHING — SPECIFICATION

(*Second Revision*)

1 SCOPE

This standard prescribes the requirements of polyamide (nylon) monofilament yarn of the following two types used generally in hook and line fishing and gillnet fishing:

- a) *Type 1* — polyamide monofilament yarns used for hook and line fishing, and
- b) *Type 2* — polyamide monofilament yarns used in the fabrication of gillnets.

2 REFERENCES

The following standards contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

<i>IS No.</i>	<i>Title</i>
1398 : 1982	Packing paper, water proof, bitumen laminated (<i>second revision</i>)
5508 (Part 1) : 1969	Guide for fishing gear: Part 1 General

*IS No.**Title*

- | | |
|--|---|
| 5815 (Part 4) :
1993/ISO 1805 :
1973 | Fishing nets — Determination of breaking load and knot breaking load of netting yarns (<i>first revision</i>) |
| 5815 (Part 7) :
1993/ISO 3790 :
1976 | Fishing nets — Determination of elongation of netting yarns (<i>first revision</i>) |

3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS 5508 (Part 1) shall apply.

4 MANUFACTURE

The materials used in the manufacture shall be virgin polyamide. The tenacity of the monofilament shall be suitable for the purpose for which it is intended (*see* Tables 1 and 2). The yarns shall not be heat set.

5 REQUIREMENTS

5.1 Polyamide (nylon) monofilament yarn for hook and line fishing and for fabrication of gillnets shall conform to the requirements specified in Tables 1 and 2, respectively.

Table 1 Requirements of Polyamide Monofilament Yarn for Hook and Line Fishing
(Clauses 4 and 5.1)

SI No.	Nominal Diameter mm	Runnage <i>Max</i> m/kg	Breaking Load <i>Min</i> N(kgf)	Elongation at Break <i>Max</i> Percent
1	0.16	41500	13.4 (1.36)	60
2	0.18	29800	15.7 (1.60)	60
3	0.2	26200	20 (2.03)	60
4	0.23	20100	23.5 (2.39)	60
5	0.24	19000	30 (3.05)	60
6	0.25	15800	32 (3.26)	60
7	0.26	14600	34 (3.46)	60
8	0.28	14000	38 (3.87)	60
9	0.3	10200	45 (4.58)	60
10	0.32	9800	49 (4.99)	60
11	0.35	8500	52 (5.30)	60
12	0.37	7400	64 (6.52)	60
13	0.4	6250	89 (9.07)	60
14	0.45	5000	121 (12.33)	60
15	0.5	4000	134 (13.66)	60
16	0.55	3400	160 (16.31)	60
17	0.6	2900	178 (18.15)	60
18	0.65	2500	193 (19.68)	60
19	0.7	2100	220 (22.43)	60
20	0.8	1750	280 (28.55)	60
21	0.9	1350	325 (33.14)	60
22	1.0	1100	380 (38.74)	60
23	1.1	900	410 (41.80)	60
24	1.2	750	422 (43.03)	60
25	1.3	650	480 (48.94)	60
26	1.4	550	540 (55.06)	60
27	1.5	500	550 (56.08)	60
28	1.6	450	668 (68.11)	60
29	1.7	390	736 (75.05)	60
30	1.8	350	807 (82.29)	60
31	1.9	310	880 (89.73)	60
32	2.0	300	900 (91.77)	60
33	2.2	230	1110 (113.18)	60
34	2.5	200	1300 (132.56)	60
35	3.0	140	1800 (183.54)	60
36	3.5	90	2400 (244.73)	60
37	4.0	70	3200 (326.30)	60
Method of Test		Annex A	IS 5815 (Part 4)	IS 5815 (Part 7)

Table 2 Requirements of Polyamide Monofilament Yarn for Gillnets
(Clauses 4 and 5.1)

SI No.	Nominal Diameter mm	Runnage Max m/kg	Breaking Load Min N(kgf)	Elongation at Break Max Percent
1	0.08	140500	5.2 (0.53)	60
2	0.1	91500	7.4 (0.75)	60
3	0.12	64500	9.8 (0.99)	60
4	0.16	37100	12.5 (1.27)	60
5	0.18	29500	15.4 (1.57)	60
6	0.2	24200	19 (1.93)	60
7	0.23	18500	22 (2.24)	60
8	0.24	17000	25 (2.54)	60
9	0.25	15800	27 (2.75)	60
10	0.26	14600	33 (3.36)	60
11	0.28	12600	37 (3.77)	60
12	0.3	11100	41 (4.18)	60
13	0.32	9800	46 (4.69)	60
14	0.35	8200	52 (5.30)	60
15	0.37	7400	57 (5.81)	60
16	0.44	6400	65 (6.62)	60
17	0.45	5100	78 (7.95)	60
18	0.5	4100	92 (9.38)	60
19	0.55	3500	106 (10.80)	60
20	0.6	2900	122 (12.4)	60
21	0.65	2500	138 (14.07)	60
22	0.7	2200	155 (15.80)	60
23	0.8	1700	191 (19.47)	60
24	0.9	1300	230 (23.45)	60
25	1.0	1100	272 (27.73)	60
Method of Test		Annex A	IS 5815 (Part 4)	IS 5815 (Part 7)

5.2 Mass

A tolerance of ± 5 percent shall be allowed on the declared value of any one package provided that the variation from the gross specified mass of any delivery to that for the respective code number does not exceed 5 percent.

6 MARKING

6.1 The hank or cheese containing the yarn shall be labelled furnishing the following information:

- Name of the material,
- Diameter and runnage,
- Net weight of package,
- Month and year of manufacture, and
- Manufacturer's name, initials or trade-mark, if any.

6.2 BIS Certification Marking

The yarns may also be marked with the Standard Mark.

6.2.1 The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act*, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the license for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

7 PACKING

The yarns shall be made into hanks or cheeses as required by the buyer. A suitable number of hanks or cheeses shall be placed one over the other and shall

be wrapped with a layer of water proof packing material. The pack shall be tied with twine of adequate strength and a suitable number of such packs shall be packed in a container of adequate strength which is previously lined with one layer of waterproof packing paper (*see* Type 2 of IS 1398). If necessary, the gaps in the container shall be filled with cushioning materials to avoid damage in transit. The container shall be properly secured and bound by iron hoops or wires.

8 SAMPLING AND CRITERIA FOR CONFORMITY

8.1 Lot

The quantity of polyamide (nylon) monofilament yarns of the same runnage and construction details delivered to a buyer against one despatch note shall constitute a lot.

8.2 Conformity of a lot to the requirements of this standard shall be determined on the basis of test carried out on the sample selected from it.

8.3 Unless otherwise agreed to between the buyer and the seller, the number of hank or cheese to be selected from a lot shall be as given below:

Lot Size (1)	Sample Size (2)
Up to 50	3
51 to 150	5
151 to 500	8
501 and above	13

8.4 The hanks or cheeses selected according to **8.3** shall be tested for length, breaking load and elongation at break for both types of yarns.

8.5 Criteria for Conformity

The lot shall be conforming to the requirements of this standard, if the following details are satisfied:

- From the test results for length and breaking load the average (\bar{x}), and the range (R) shall be determined and the value of the expression $\bar{x} - 0.4 R$ shall not fall below the minimum value specified.
- From the test results for elongation at break, the average (\bar{x}) and the range (R) shall be determined and the value of expression $\bar{x} + 0.4 R$ shall be less than the specified limit.

ANNEX A

(Table 1)

METHOD FOR DETERMINATION OF RUNNAGE

A-1 TEST SPECIMENS

Remove 10 m length skeins from each of the hank or cheeses constituting the sample under test.

A-2 PROCEDURE

Determine the mass of a skein removed from a hank or cheeses to the nearest gram. From the mass compute the runnage (m/kg).

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Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards: Monthly Additions'.

This Indian Standard has been developed from Doc No.: TXD 18 (1212).

Amendments Issued Since Publication

Amendment No.	Date of Issue	Text Affected

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AMENDMENT NO. 1 JULY 2021

TO

**IS 7533 : 2017 TEXTILES — POLYAMIDE (NYLON)
MONOFILAMENT YARN FOR FISHING —
SPECIFICATION**

(Second Revision)

(Page 2, Table 1, col 3) — Substitute ‘**Runnage**, m/kg, Tolerance + 5 percent’
for ‘**Runnage**, Max, m/kg’.

(Page 3, Table 2, col 3) — Substitute ‘**Runnage**, m/kg, Tolerance + 5 percent’
for ‘**Runnage**, Max, m/kg’.